

Notice of Allowability

Application No.

09/986,894

Examiner

Karla Moore

Applicant(s)

YONEMIZU ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to AF amendment filed 11/24/04.
2. ☒ The allowed claim(s) is/are 1-5,9,10 and 39-46.
3. ☒ The drawings filed on 13 November 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 1104
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Edwin Garlepp on 7 December 2004.

The application has been amended as follows:

CANCEL CLAIMS 22-37.

EXAM. AMEND
12/18/04
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Allowable Subject Matter

2. Claims 1-5, 9-10 and 39-46 are allowed.
3. The following is an examiner's statement of reasons for allowance: The prior art of record fails to fairly teach or suggest: An apparatus disposed adjacent to a main transfer mechanism for processing a substrate one by one, comprising: a heating process chamber in which a heating process is performed one by one for the substrate; a load lock chamber, integrally connected to the heating process chamber in a predetermined direction, having an opening closable with a shutter allowing the substrate to be transferred between the main transfer mechanism and the load lock chamber, and controlling at least oxygen concentration and pressure; a transferring arm, having a temperature adjusting portion adjusting a temperature of the substrate placed thereon, capable of moving between the heating process chamber and the load lock chamber, transferring the substrate one by one within the integrally connected zone of the heating process chamber and the load lock chamber, and allowing the main transfer mechanism to collect the substrate placed on the temperature adjusting portion of the transferring arm through the opening, and a gate valve shielding the integrally connected heating process chamber from the load lock chamber, wherein the heating process chamber comprises: a supplier supplying an inert gas to the heating process chamber; a pressure reducing portion reducing a pressure inside the heating chamber; and a

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controller controlling the supplier and the pressure reducing portion so that the oxygen concentration of the heating process chamber decreases at a velocity in the range from around 6000 ppm/second to 20000 ppm/second. Nor does the prior art of record teach or fairly suggest: An apparatus disposed adjacent to a main transfer mechanism for processing a substrate one by one, comprising: a heating process chamber in which a heating process is performed one by one for the substrate; a load lock chamber, integrally connected to the heating process chamber in a predetermined direction, having an opening closable with a shutter allowing the substrate to be transferred between the main transfer mechanism and the load lock chamber, and controlling at least oxygen concentration and pressure; a transferring arm, having a temperature adjusting portion adjusting a temperature of the substrate placed thereon, capable of moving between the heating process chamber and the load lock chamber, transferring the substrate one by one within the integrally connected zone of the heating process chamber and the load lock chamber, and allowing the main transfer mechanism to collect the substrate placed on the temperature adjusting portion of the transferring arm through the opening, and a gate valve shielding the integrally connected heating process chamber from the load lock chamber, wherein the heating process chamber comprises: a heating plate for heating the substrate; a lid body, capable of being lifted up and down, disposed above the heating plate to cover the heating plate when the lid body is lifted down; a moving mechanism for raising and lowering the lid body; and **a canopy member disposed opposite to the gate valve of the load lock chamber and provided integrally with the lid body so that the canopy member is placed in an upper portion of the gate valve when the lid body is lifted up, and placed in a lower portion of the gate valve when the lid body is lowered down.** Further, no other piece of properly combinable prior art was located that taught the missing features.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

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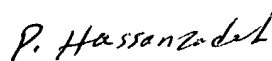
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 571.272.1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC)

at 866-217-9197 (toll-free).



km
8 December 2004



Parviz Hassanzadeh
Primary Examiner
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